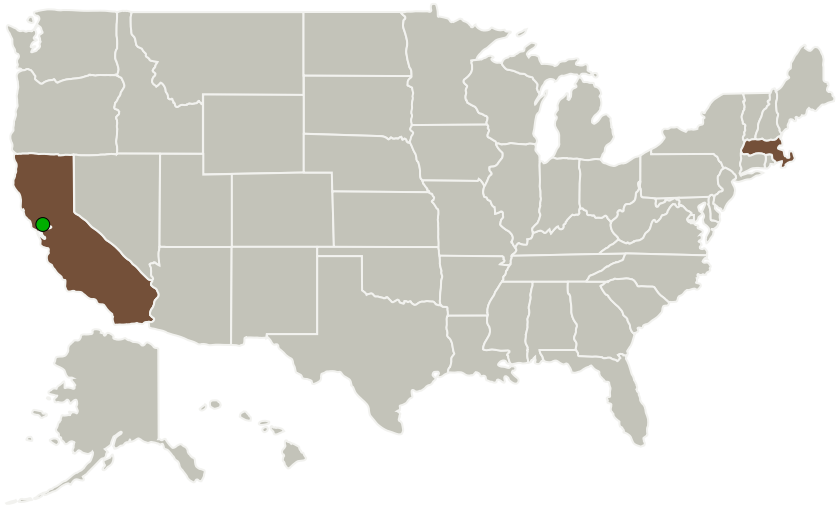
Glidersonde, a Meteorological Optical Profiling Sensor, Phase I

Completed Technology Project (2012 - 2012)

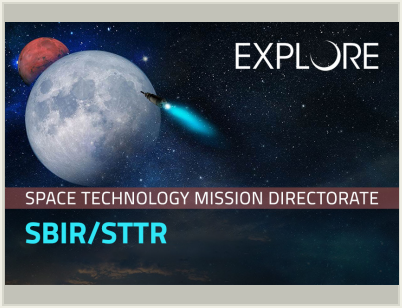
Project Introduction

The "Glidersonde"is a UAV-deployed environmental sensor suite that is air-deployed and glides into denied or hazardous areas including volcanoes or nuclear emergency, wildland fire or HAZMAT release areas. It can either be released by hand or used with Yankee's commercial Automated Dropsonde Dispenser (ADD) which we tested in the Navy Twin Otter P256, and is and is currently undergoing integration with NASA's Global Hawk for a 2012 test. It measures local scattering, cloud optical depth, ground/sea surface temperatures, SOx, nuclear radiation, aerosol optical depth, as well as in-situ pressure/temperature/humidity/winds like a NCAR RD-94 dropsonde.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Yankee Environmental Systems,Inc	Lead Organization	Industry	Turners Falls, Massachusetts
Ames Research Center(ARC)	Supporting Organization	NASA Center	Moffett Field, California



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Primary U.S. Work Locations	
California	Massachusetts

Project Transitions

February 2012: Project Start

August 2012: Closed out

Closeout Documentation:

- Final Summary Chart*(https://techport.nasa.gov/file/138184)*

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Yankee Environmental Systems,Inc

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

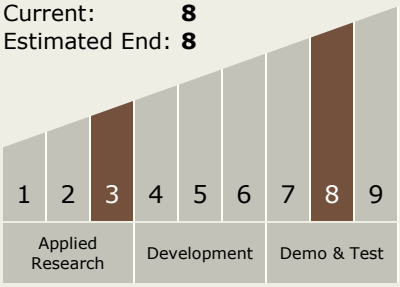
Carlos Torrez

Principal Investigator:

Mark Beaubien

Technology Maturity (TRL)

Start: **3**
Current: **8**
Estimated End: **8**



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Technology Areas

Primary:

- TX05 Communications, Navigation, and Orbital Debris Tracking and Characterization Systems
  - TX05.1 Optical Communications
    - TX05.1.6 Optimetrics

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System